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instructing a tuner to tune to the scheduled channel at approximately the scheduled time

to receive the information associated with the scheduled channel, regardless of the presence of

the user, and store the information associated with the channel for subsequent processing.

40.    (Amended) An information handling system comprising:

a tuner having means for tuning to a plurality of channels; and

a scheduler having means configurable for determining a scheduled time and scheduled

channel to receive and store information associated with the scheduled channel, the operation of

said scheduler being initiated by a user,

wherein the means for tuning tunes to the scheduled channel at approximately the

scheduled time to receive the information associated with the channel, regardless of the presence

of the user, and stores the information associated with the channel for subsequent processing,

whereby the information may subsequently be retrieved and viewed or used by the user.


## REMARKS

Applicant has carefully reviewed and considered the Office Action mailed October 26,

1999, and the references cited therewith.

Claims 1, 9, 15, 16, 21, 25, 32, 26, and 40 are amended.  Claims 1-43 are now pending in

the application.

Applicants respectfully request reconsideration of the above-identified patent application

as amended in view of the following remarks.


### REJECTIONS UNDER 35 U.S.C. § 102

Claims 25, 32 and 36 were rejected under 35 U.S.C. § 102(b) as being anticipated by

Ohga (U.S. Patent No. 5,465,385).  The Office Action asserts,

> "Considering claim 25, the claimed information handling system comprising a
> tuner tunable to a plurality of channels reads on BS converter 20 of Ohga, (Fig. 3; col. 3,
> lines 3-10).  The claimed scheduler configured to determine a scheduled time & channel
> from the plurality of channels for receiving information associated with the scheduled
> channel, wherein the tuner tunes to the scheduled channel at approximately the
> scheduled time to receive the information associated with the channel is broad enough to

read on Ohga, (col. 5, lines 2-11)".

Considering claim 32, the CPU 25 and memory 26 of Ohga provide computer readable medium having computer-executable instructions stored thereon for performing the steps recited in claim 25.

Considering claim 36, the claimed method steps of information handling corresponds with subject matter mentioned above in the rejection of claim 25, and are likewise rejected."

Reconsideration of the rejection of claims 25, 32 and 36 is respectfully requested. Independent claim 25 has been amended to clarify that the operation of the scheduler is initiated by a user, and that the tuner of the system tunes to a scheduled channel regardless of the presence of a user.

Independent claim 32 has been amended to clarify that determination of a scheduled time and a scheduled channel is initiated by a user, and the tuner is instructed to tune to a scheduled channel regardless of the presence of a user, and receive and store the information associated with the channel for subsequent processing. Independent claim 36 has been amended to clarify that determination of a scheduled time and a scheduled channel is initiated by a user, and the tuner is instructed to tune to the scheduled channel, regardless of the presence of a user, to receive and store the information associated with the channel for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by a user.

Ohga fails to show all elements of independent claims 25, 32 and 36 as clarified by amendments thereto. Applicant cannot find in Ohga a system as recited in independent claim 25, a computer readable medium as set forth in independent claim 32 or a method as set forth in independent claim 36. Ohga fails to teach or suggest tuning to a channel regardless of the presence of a user and receiving and storing information associated with a channel for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by a user. Ohga appears to be directed to a system for reserving a film which is broadcast at a reserved time, for which the user must be present or the user will miss the program and will not be able to view it (see Ohga, col. 5, lines 8-16). Since Ohga fails to teach or suggest these features it is respectfully submitted that independent claims 25, 32 and 36 are patentably distinguished.

In view of the foregoing, the basis for the stated rejection is seen to be removed.

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Withdrawal of the stated rejection in view of Ohga and notice of allowance of claims 25, 32 and 36 are respectfully requested.

## *REJECTIONS UNDER 35 U.S.C. § 103*

I.    Rejection of claims 1-24, 26-27, 29-31, 33-34, 37-38 and 41-42 in view of Ohga and Banker

Claims 1-24, 26-27, 29-31, 33-34, 37-38 and 41-42 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Ohga in view of Banker (U.S. Patent No. 5,497,187).

Applicant has clarified the present invention as set forth in the claims by including in all independent claims (claims 1, 9, 15, 16, 21, 25, 32, 36, and 40) the limitation of user initiated scheduling, and receiving data regardless of the presence of a user, and in some claims storage of the data for subsequent processing and retrieval by the user. Applicant submits that in view of these amendments the basis for the stated rejection is seen to be removed.

Under 35 U.S.C. Section 103, the U.S. Patent and Trademark Office has the burden of establishing a *prima facie* case of obviousness. The burden can be satisfied "*only* by showing some *objective* teaching in the prior art or knowledge generally available to one of ordinary skill in the art." (Emphasis Added). *In re Fine,* 837 F.2d 1071 (CAFC 1988). Thus, one must be able to point to something in the prior art that suggests in some way the modification of the particular reference to obtain the claimed invention. Accordingly, for reasons which follow, neither Ohga nor Banker nor any combination thereof teaches or suggests Applicant's novel system as recited by claims 1-8, Applicant's novel method as recited by claims 9-14, Applicant's novel computer readable medium as recited by claim 15, Applicant's novel system recited by claims 16-20, Applicant's novel system as set forth in claims 21-24, Applicant's novel system as set forth in claims 26-27 and 29-31, Applicant's novel computer readable medium as recited by claims 33-34, Applicant's novel method as recited by claims 37-38 or Applicant's novel system as recited by claims 41-42. Nor is there any objective teaching in Ohga or Banker that would suggest modifying the embodiments disclosed therein to obtain the present invention.

In determining whether a section 103 rejection is proper, it is necessary to determine the subject matter of the claimed invention, "as a whole". There is no "essential part" of the claimed invention, or "gist" or "heart" or "core" of the invention that is evaluated in determining the

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invention's obviousness. *Loctite v. Ultraseal, Ltd.,*781 F.2d 861, 228 USPQ 90 (CAFC 1985).

In evaluating obviousness, it is necessary to consider *all* the subject matter defined in the claim

under consideration, not most or part of it.

*Claims 1-8*

The Office Action asserts regarding claim 1:

"Considering claim 1, the claimed computerized system for scheduling caching
of data broadcast in a channel, comprising a real-time scheduling process reads on the
disclosure of Ohga, which enables the user to choose to receive certain desired
broadcasts, (col. 4, lines 58-67). The claimed scheduling process operable for
determining a scheduled time & channel for a broadcast and for invoking the real-time
scheduling process, wherein the process instructs the tuner circuitry to tune to the
scheduled channel for receiving the selected broadcast reads is met by the disclosure of
Ohga, that when the user selects the desired broadcast, the corresponding channel
information is stored in RAM of memory 26, (col. 4, lines 11-15) and is used to
automatically tune the receiver to the appropriate channel, at the appropriate time, in
order to receive the desired broadcast. Even though Ohga discloses that the EPG may be
transmitted to the subscriber as inband data, the usage of the in-band data technique is
not discussed for the purpose of scheduling automatic updates of the EPG described
scheduling/automatic reception process for receiving inband data. Nevertheless, Banker
discusses the well known advantages of technique of in-band data broadcasting for
automatic updates of the EPG, (col. 3, lines 44-50). It would have been obvious for one
ordinary skill in the art at the time the invention was made, to modify the scheduling
algorithm of Ohga, with the technique of periodic updating of in-band data broadcasts, as
taught by Banker, at least for the well known advantage of scheduling automatic updates
of EPG data which enables a user to receive the instant updates without having to
physically tune the channel to the required channel. Thus the combination of Ohga &
Banker, provides the additional claimed feature of invoking a caching process at the
appropriate scheduled time, which automatically tunes the tuner to the proper channel,
receives in-band data and stores the instant received data for subsequent processing, see
Ohga, (col. 4, lines 11-15) & Banker, (col. 10, lines 25-36)".

Ohga is directed to a system for selecting a movie and displaying the movie on a one time

basis. The user must be present to receive this data. Storage and subsequent retrieval for

viewing or use by a user is neither taught nor suggested by Ohga, which provides specifically

that the data is scrambled to prevent access after the movie is displayed. The Office Action

further admits that Ohga does not discuss the usage of the in-band data technique for the purpose

of scheduling automatic updates of the EPG described scheduling/automatic reception process

for receiving inband data. Ohga therefore provides no motivation to look to Banker. Further,

Banker is directed to data transmission for a cable TV system and does not teach or suggest user

initiated scheduling as set forth in claim 1 of the present invention, transmission of data

scheduled by a user regardless of the presence of a user, or storage and retrieval of information

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for later use by a user, as set forth in claim 1 of the present invention.

Applicant submits that Ohga and Banker fail to establish all of the elements of claim 1. Applicant cannot find in Ohga or Banker a system as set forth in claim 1. Applicant's novel system as recited by independent claim 1 as amended is directed to a computerized-system for scheduled caching of in-band data broadcast in a channel comprising a real-time scheduling process, and a scheduling process operable for determining a scheduled time and channel for an in-band data broadcast, and for invoking the real-time scheduling process to schedule execution of a caching process at approximately the scheduled time, wherein the caching process is operable for instructing tuner circuitry to tune to the scheduled channel, for receiving the in-band data from the tuning circuitry regardless of the presence of a user, and for storing the in-band data for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by a user. These features are present in claims 2-8 depending therefrom.

Since Ohga and Banker fail to teach or suggest these features it is respectfully submitted that claims 1-8 are patentably distinguished.

In addition, the Office Action discusses the differences between Ohga and Banker and the present invention as set forth in the claims. The Office Action further fails to evaluate the claims "as a whole".

The Office Action asserts with regard to claims 2-8:

"Considering claim 2, the claimed feature of retrieving the scheduling time & channel from a source is broad enough to read on Ohga, which retrieves the time & channel data from in-band data & stores it in memory, (col. 4, lines 11-15; col. 4, lines 61-67).

Considering claims 3 & 12, Ohga receives in-band data scheduling data from a broadcast of EPG, (col. 4, lines 11-15).

Considering claims 4, 13, 17, 23 Banker discusses separating in-band data from other data, (col. 18, lines 37-46).

Considering claim 5, Banker discusses transmitting in-band data within the VBI, (col. 3, lines 42-53).

Considering claim 6, Ohga discloses a terminal apparatus 102, which comprises a BS converter 20. Even though it is not specifically stated that the terminal device is operable to process digital satellite transmission, examiner takes Official Notice that at

the time the invention was made, such receivers were notoriously well known in the art. It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Ohga & Banker, to include digital satellite reception for the well known benefit of increasing the number of transmission mediums from which a user receives TV broadcasts.

Considering claims 7, 14, 20, 27, 34, 38 & 42 both Ohga (col. 4, lines 11-13) and Banker (col. 3, lines 42-53). disclose transmitting an EPG via in-band data.

Considering claims 8, 24, 31 Ohga discloses automatically turning on the TV receiver according to the scheduling process, (col. 5, lines 2-10)."

Applicant submits that claims 2-8 depend from and further define patentably distinct claim1, and are therefore also believed allowable.

Regarding claim 2, Applicant cannot find in Ohga and Banker a system as set forth in claim 1, wherein a scheduled time and channel are retrieved from a source. Further, any basis for the Office Action's comments is seen to be removed by the foregoing amendment to claim 1.

Regarding claim 3, Applicant submits that any basis for the stated rejection is seen to be removed by the foregoing amendment to claim 1. Applicant respectfully notes that the Office Action admits that Ohga does not discuss the usage of the in-band data technique for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving inband data.

Applicant submits that any bases for the stated rejection of claim 4 and the stated rejection of claim 5 are seen to be removed by the foregoing amendment to claim 1.

Regarding claim 6, the Office Action admits that Ohga does not disclose a terminal device operable to process digital satellite transmission. The Examiner has taken Official Notice, however, that "at the time the invention was made, such receivers were notoriously well known in the art to support the assertion that it would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Ohga & Banker, to include digital satellite reception for the well known benefit of increasing the number of transmission mediums from which a user receives TV broadcasts". Applicant traverses the assertion made by Official Notice. Applicant requests under MPEP Section 2144.03 that the Examiner submit either an Affidavit under 37 C.F.R. Section 1.107(b) detailing the Examiner's knowledge of the prior art or showing where such a contention is supported, or that the rejection be withdrawn.

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Applicant's request constitutes a timely traversal of this assertion made by the Office Action.

Regarding claims 7 and 8, Applicant submits that the stated bases of rejection are seen to

be removed in view of the amendment to claim 1.

*Claims 9-14*

The Office Action asserts with regard to claims 9-14:

"Considering claims 3 & 12, Ohga receives in-band data scheduling data from a
broadcast of EPG, (col. 4, lines 11-15).
Considering claims 4, 13, 17, 23 Banker discusses separating in-band data from
other data, (col. 18, lines 37-46).
Considering claims 7, 14, 20, 27, 34, 38 & 42 both Ohga (col. 4, lines 11-13) and
Banker (col. 3, lines 42-53). disclose transmitting an EPG via in-band data.
Considering claim 9, the claimed method steps of a scheduling process
corresponds with subject matter mentioned above in the rejection of claim 1, and are
likewise rejected.
Considering claim 10, Ohga displays a plurality of options for broadcast
programming available to a user, and determines the time & channel of the schedule
selected by the user, (col. 4, lines 58-67).
Considering claims 11, 19, 22 Ohga determines that the source of the schedule is
in-band data and thereby retrieves the schedule, (col. 4, lines 11-15)".

Ohga and Banker fail to establish all of the elements of claim 9. As stated above with

regard to claim 1, Ohga is directed to a system for selecting a movie and displaying the movie on

a one time basis. The user must be present to receive this data. Storage and subsequent retrieval

for viewing or use by a user is neither taught nor suggested by Ohga, which provides specifically

that the data is scrambled to prevent access after the movie is displayed. The Office Action

further admits that Ohga does not discuss the usage of the in-band data technique for the purpose

of scheduling automatic updates of the EPG described scheduling/automatic reception process

for receiving inband data. Ohga therefore provides no motivation to look to Banker. Further,

Banker is directed to data transmission for a cable TV system and does not teach or suggest user

initiated scheduling as set forth in claim 9 of the present invention, receiving the in band data

broadcast in the schedule channel regardless of the presence of a user, or storage of the

information for subsequent retrieval and viewing or use by a user, as set forth in claim 9 of the

present invention.

Applicant cannot find in Ohga or Banker a method as set forth in claim 9. Applicant's

novel method as recited by independent claim 9 is directed to scheduled caching of in-band data

broadcast and comprises determining a schedule for the in-band data broadcast, wherein the

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schedule comprises a time and a channel, said determination being initiated by a user, instructing

tuning circuitry to tune to the schedule channel at approximately the schedule time, receiving the

in-band data broadcast in the schedule channel regardless of the presence of a user, and storing

the in-band data on mass storage for subsequent retrieval and viewing or use by a user. These

features are present in claims 10-14 depending therefrom.

Since Ohga and Banker fail to teach or suggest these features it is respectfully submitted

that claim 9 is patentably distinguished. Claims 10-14 are directed to further limitations to a

patentable base claim.

Regarding claims 10, 11 and 12, Applicant respectfully submits that any bases for the

stated rejections are seen to be removed in view of the amendment to claim 9. Regarding claim

12, Applicant respectfully notes further that the Office Action admits that Ohga does not discuss

the usage of the in-band data technique for the purpose of scheduling automatic updates of the

EPG described scheduling/automatic reception process for receiving inband data.

Applicant submits that any bases for the stated rejections of claims 13 and 14 are seen to

be removed by the foregoing amendment to claim 9.

### Claim 15

The Office Action asserts with regard to claim 15:

> "Considering claim 15, the claimed steps corresponds with subject matter
> mentioned above in the rejection of claim 1, and are likewise rejected. Regarding the
> additional limitation of storing the recited steps on a computer readable medium having
> computer-executable instructions stored thereon fro performing the steps, Ohga discloses
> storing instructions in memory 26, which are controlled by CPU 25".

Ohga and Banker fail to establish all of the elements of claim 15. As discussed

hereinabove, Ohga is directed to a system for selecting a movie and displaying the movie on a

one time basis. The user must be present to receive this data. Storage and subsequent retrieval

for viewing or use by a user is neither taught nor suggested by Ohga, which provides specifically

that the data is scrambled to prevent access after the movie is displayed. The Office Action

further admits that Ohga does not discuss the usage of the in-band data technique for the purpose

of scheduling an automatic reception process for receiving inband data. Ohga provides no

motivation to look to Banker. Banker is directed to data transmission for a cable TV system and

does not teach or suggest user initiated schedule determination as set forth in claim 15 of the

present invention, receiving the in band data broadcast regardless of the presence of a user, or

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storage and retrieval of information for later use by a user, as set forth in the claims of the present invention.

Applicant cannot find in Ohga or Banker a computer readable medium as set forth in claim 15. Claim 15 as amended is directed to a novel computer-readable medium having computer-executable instructions stored thereon for determining a schedule for the in-band data broadcast, wherein the schedule comprises a time and a channel, said determination being initiated by a user, instructing tuning circuitry to tune to the schedule channel at approximately the schedule time, receiving the in-band data broadcast in the schedule channel regardless of the presence of the user and storing the in-band data on mass storage for subsequent retrieval and viewing or use by the user. Since Ohga and Banker fail to establish all of these elements it is respectfully submitted that claim 15 is patentably distinguished.

*Claims 16-20*

The Office Action asserts with regard to claims 16-20:

> "Considering claims 4, 13, 17, 23 Banker discusses separating in-band data from other data, (col. 18, lines 37-46).
> Considering claims 7, 14, 20, 27, 34, 38 & 42 both Ohga (col. 4, lines 11-13) and Banker (col. 3, lines 42-53). disclose transmitting an EPG via in-band data.
> Considering claims 11, 19, 22 Ohga determines that the source of the schedule is in-band data and thereby retrieves the schedule, (col. 4, lines 11-15).
> Considering claim 16, the claimed elements of a digital processing system corresponds with subject matter mentioned above in the rejection of claim 15, and are likewise rejected.
> Considering claim 18, as discussed above in the rejection of claim 10, Ohga provides a plurality of scheduling options for receiving broadcast programming".

Ohga and Banker fail to establish all of the elements of claim 16. As discussed hereinabove, Ohga is directed to a system for selecting a movie and displaying the movie on a one time basis. The user must be present to receive this data. Storage and subsequent retrieval for viewing or use by a user is neither taught nor suggested by Ohga, which provides specifically that the data is scrambled to prevent access after the movie is displayed. The Office Action further admits that Ohga does not discuss the usage of the in-band data technique for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving inband data. Ohga therefore provides no motivation to look to Banker. Further, Banker is directed to data transmission for a cable TV system and does not teach or suggest user initiated scheduling as set forth in claim 16 of the present invention, transmission of data

scheduled by a user regardless of the presence of a user, or storage and retrieval of information

for later use by a user, as set forth in claim 16 of the present invention.

Applicant cannot find in Ohga or Banker a digital processing system as set forth in claim

16. Applicant's novel digital processing system as set forth in independent claim 16 as amended

comprises a scheduled caching program executed from a computer-readable medium by a

processor, wherein the scheduled caching program initiated by a user causes the real-time clock

circuitry to schedule a subsequent execution of the scheduled caching program at approximately

a scheduled time and the subsequent execution of the scheduled caching program, regardless of

the presence of the user, instructs the tuning circuitry to tune to a channel, receives in-band data

from the tuning circuitry, and stores the in-band data for subsequent processing for subsequent

retrieval and viewing or use by the user. These features are present in claims 17-20 depending

therefrom. Since Ohga and Banker fail to establish all of these elements, it respectfully submitted

that claims 16-20 are patentably distinguished, claims 17-20 being directed to further limitations

to a patentable base claim.

Regarding claims 17,18, 19 and 20, Applicant submits that any bases for the stated

rejections are seen to be removed by the foregoing amendment to claim 16.

*Claims 21-24*

The Office Action asserts with regard to claims 20-24:

> "Considering claims 4, 13, 17, 23 Banker discusses separating in-band data from
> other data, (col. 18, lines 37-46).
> Considering claims 8, 24, 31 Ohga discloses automatically turning on the TV
> receiver according to the scheduling process, (col. 5, lines 2-10).
> Considering claims 11, 19, 22 Ohga determines that the source of the schedule is
> in-band data and thereby retrieves the schedule, (col. 4, lines 11-15).
> Considering claim 21, the claimed elements of a computerized-system for
> scheduling the caching of in-band data broadcast, corresponds with subject matter
> mentioned above in the rejection of claim 1, and are likewise rejected".

Ohga and Banker fail to establish all of the elements of claim 21. As discussed

hereinabove, Ohga is directed to a system for selecting a movie and displaying the movie on a

one time basis. The user must be present to receive this data. Storage of in-band data for

subsequent for subsequent processing is neither taught nor suggested by Ohga, which provides

specifically that the data is scrambled to prevent access after the movie is displayed. The Office

Action further admits that Ohga does not discuss the usage of the in-band data technique for the

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automatic reception process for receiving inband data. Ohga therefore provides no motivation to look to Banker. Further, Banker is directed to data transmission for a cable TV system and does not teach or suggest user initiated scheduling as set forth in the claims of the present invention, transmission of data scheduled by a user regardless of the presence of a user, or storage and retrieval of information for later use by a user, as set forth in the claims of the present invention.

Applicant cannot find in Ohga or Banker a computerized system as set forth in claim 21. Claim 21 as amended is directed to a novel computerized system for scheduled caching of in-band data broadcast in a channel comprising a real-time scheduling process and a user-initiated scheduling process having means for determining a scheduled time and channel for an in-band data broadcast, and for invoking the real-time scheduling process to schedule execution of a caching process at approximately the scheduled time, wherein the caching process has means for instructing tuner circuitry to tune to the scheduled channel regardless of the presence of a user, for receiving the in-band data from the tuning circuitry, and for storing the in-band data for subsequent processing. These features are present in claims 22-24 depending therefrom which present further limitations to a patentable base claim. Since Ohga and Banker fail to establish all of these elements, it respectfully submitted that claims 21-24 are patentably distinguished.

Regarding claims 22, 23 and 24, Applicant submits that any bases for the stated rejections are seen to be removed by the foregoing amendment to claim 21.

*Claims 26-27 and 29-31*

The Office Action asserts with regard to claims 26-27 and 29-31:

> "Considering claims 7, 14, 20, 27, 34, 38 & 42 both Ohga (col. 4, lines 11-13) and Banker (col. 3, lines 42-53). disclose transmitting an EPG via in-band data.
> Considering claims 8, 24, 31 Ohga discloses automatically turning on the TV receiver according to the scheduling process, (col. 5, lines 2-10).
> Considering claims 26, 33, 37 & 41 even though Ohga discloses that the EPG may be transmitted to the subscriber as in-band data, the usage of the in-band data technique is not discussed for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving in-band data. Nevertheless, Banker discuss the well known advantages of technique of in-band data broadcasting for automatic updates of the EPG, (col. 3, lines 44-50). It would have been obvious for one ordinary skill in the art at the time the invention was made, to modify the scheduling algorithm of Ohga, with the technique of periodic updating of in-band data broadcasts, as taught by Banker, at least for the well known advantage of scheduling automatic updates of EPG data which enables a user to receive the instant updates without having to physically tune the channel to the required channel. Thus the combination of Ohga & Banker, provides the additional claimed feature of invoking a

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caching process at the appropriate scheduled time, which automatically tunes the tuner to the proper channel, receives in-band data and stores the instant received data for subsequent processing, see Ohga, (col. 4, lines 11-15) & Banker, (col. 10, lines 25-36).

Considering claim 29, the claimed steps of an information handling system corresponds with subject matter mentioned above in the rejection of claim 1, and are likewise rejected.

Considering claim 30, schedule time and channel information is retrieved from the channel which transmits/receives the EPG data, (col. 4, lines 11-14)".

Ohga and Banker fail to establish all of the elements of claims 26-27 and 29-31. As discussed hereinabove, Ohga is directed to a system for selecting a movie and displaying the movie on a one time basis. The user must be present to receive this data. Storage and subsequent retrieval for viewing or use by a user is neither taught nor suggested by Ohga, which provides specifically that the data is scrambled to prevent access after the movie is displayed. The Office Action further admits that Ohga does not discuss the usage of the in-band data technique for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving inband data. Ohga therefore provides no motivation to look to Banker. Further, Banker is directed to data transmission for a cable TV system and does not teach or suggest user initiated scheduling as set forth in the claims of the present invention, or a tuner which tunes to a scheduled channel at approximately the scheduled time regardless of the presence of a user to receive information associated with the channel, as set forth in claim 25 of the present invention.

As discussed hereinabove, claim 25, from which these claims depend is directed to a novel information handling system comprising a tuner tunable to a plurality of channels and a scheduler configured to determine a scheduled time and a scheduled channel from the plurality of channels for receiving information associated with the scheduled channel, the operation of said scheduler being initiated by a user, wherein the tuner tunes to the scheduled channel at approximately the scheduled time, regardless of the presence of the user, to receive the information associated with the channel. Applicant cannot find in Ohga or Banker such a system. These features are present in claims 26-27 and 29-31, which include further limitations to a patentable base claim. Since Ohga and Banker fail to establish all of these elements, it is respectfully submitted that claims 26-27 and 29-31 are patentably distinguished.

Regarding claim 26, the Office Action admits that usage of the in band data technique is not discussed for the purpose of scheduling automatic updates of the EPG, and that the described

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scheduling/automatic reception process for receiving in-band data is not discussed by Ohga.

Ohga provides no motivation to include such a feature.

*Claims 33-34*

The Office Action asserts regarding claims 33-34:

> "Considering claims 7, 14, 20, 27, 34, 38 & 42 both Ohga (col. 4, lines 11-13) and Banker (col. 3, lines 42-53). disclose transmitting an EPG via in-band data.
> Considering claims 26, 33, 37 & 41 even though Ohga discloses that the EPG may be transmitted to the subscriber as in-band data, the usage of the in-band data technique is not discussed for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving in-band data. Nevertheless, Banker discuss the well known advantages of technique of in-band data broadcasting for automatic updates of the EPG, (col. 3, lines 44-50). It would have been obvious for one ordinary skill in the art at the time the invention was made, to modify the scheduling algorithm of Ohga, with the technique of periodic updating of in-band data broadcasts, as taught by Banker, at least for the well known advantage of scheduling automatic updates of EPG data which enables a user to receive the instant updates without having to physically tune the channel to the required channel. Thus the combination of Ohga & Banker, provides the additional claimed feature of invoking a caching process at the appropriate scheduled time, which automatically tunes the tuner to the proper channel, receives in-band data and stores the instant received data for subsequent processing, see Ohga, (col. 4, lines 11-15) & Banker, (col. 10, lines 25-36)".

Ohga and Banker fail to establish all of the elements of claims 33-34. As discussed hereinabove, Ohga is directed to a system for selecting a movie and displaying the movie on a one time basis. The user must be present to receive this data. Storage and subsequent retrieval for viewing or use by a user is neither taught nor suggested by Ohga, which provides specifically that the data is scrambled to prevent access after the movie is displayed. The Office Action further admits that Ohga does not discuss the usage of the in-band data technique for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving inband data. Ohga therefore provides no motivation to look to Banker. Further, Banker is directed to data transmission for a cable TV system and does not teach or suggest user initiated scheduling as set forth in claims 33-34 of the present invention, transmission of data scheduled by a user regardless of the presence of a user, or storage of information for subsequent processing, as set forth in as set forth in claims 33-34 of the present invention.

Claim 32, from which claims 33-34 depend, is directed to a novel computer-readable medium having computer-executable instructions stored thereon for performing steps comprising determining a scheduled time and a scheduled channel to receive information associated with the scheduled channel, said determination being initiated by a user; and instructing a tuner to tune to

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the scheduled channel at approximately the scheduled time to receive the information associated with the scheduled channel, regardless of the presence of the user, and store the information associated with the channel for subsequent processing. Applicant cannot find in Ohga or Banker such a computer readable medium. These features are present in claims 33-34 which provide further limitations to a patentable base claim. Since Ohga and Banker fail to establish all of these elements, it is respectfully submitted that claims 33-34 are patentably distinguished.

Regarding claims 33 and 34, Applicant notes that in view of the foregoing amendment to claim 32, any basis for the rejection of claims 33 and 34 is seen to be removed. Regarding claim 33, the Office Action admits that usage of the in band data technique is not discussed for the purpose of scheduling automatic updates of the EPG, and that the described scheduling/automatic reception process for receiving in-band data is not discussed by Ohga. Ohga provides no motivation to include such features.

*Claims 37-38*

The Office Action asserts with regard to claims 37-38:

> "Considering claims 7, 14, 20, 27, 34, 38 & 42 both Ohga (col. 4, lines 11-13) and Banker (col. 3, lines 42-53). disclose transmitting an EPG via in-band data.
> Considering claims 26, 33, 37 & 41 even though Ohga discloses that the EPG may be transmitted to the subscriber as in-band data, the usage of the in-band data technique is not discussed for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving in-band data. Nevertheless, Banker discuss the well known advantages of technique of in-band data broadcasting for automatic updates of the EPG, (col. 3, lines 44-50). It would have been obvious for one ordinary skill in the art at the time the invention was made, to modify the scheduling algorithm of Ohga, with the technique of periodic updating of in-band data broadcasts, as taught by Banker, at least for the well known advantage of scheduling automatic updates of EPG data which enables a user to receive the instant updates without having to physically tune the channel to the required channel. Thus the combination of Ohga & Banker, provides the additional claimed feature of invoking a caching process at the appropriate scheduled time, which automatically tunes the tuner to the proper channel, receives in-band data and stores the instant received data for subsequent processing, see Ohga, (col. 4, lines 11-15) & Banker, (col. 10, lines 25-36).".

Ohga and Banker fail to establish all of the elements of claims 37-38. As noted hereinabove, Ohga is directed to a system for selecting a movie and displaying the movie on a one time basis. The user must be present to receive this data. Storage and subsequent retrieval for viewing or use by a user is neither taught nor suggested by Ohga, which provides specifically that the data is scrambled to prevent access after the movie is displayed. The Office Action further admits that Ohga does not discuss the usage of the in-band data technique for the purpose

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of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving inband data, as set forth in claims 37 and 38. Ohga therefore provides no motivation to look to Banker. Further, Banker is directed to data transmission for a cable TV system and does not teach or suggest user initiated scheduling, transmission of data scheduled by a user regardless of the presence of a user, or storage and retrieval of information for later use by a user, as set forth in the present invention as claimed.

Claim 36, from which claims 37-38 depend, is directed to a novel method for handling information comprising the steps of determining a scheduled time and a scheduled channel to receive information associated with the scheduled channel, said determination being initiated by a user; and instructing a tuner to tune to the scheduled channel at approximately the scheduled time to receive the information associated with the scheduled channel regardless of the presence of the user, and store the information associated with the channel for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by the user. Applicant cannot find in Ohga or Banker such a method. These features are present in claims 37-38. Since Ohga and Banker fail to establish all of these elements, it is respectfully submitted that claims 37-38 are patentably distinguished. As noted above, the Office Action admits that usage of the in band data technique is not discussed for the purpose of scheduling automatic updates of the EPG, and that the described scheduling/automatic reception process for receiving in-band data is not discussed by Ohga. Such features are not motivated by Ohga. Ohga and Banker fail to establish all of the elements of claims 37-38.

*Claims 41-42*

The Office Action asserts regarding claims 41-42:

> "Considering claims 7, 14, 20, 27, 34, 38 & 42 both Ohga (col. 4, lines 11-13) and Banker (col. 3, lines 42-53). disclose transmitting an EPG via in-band data.
> Considering claims 26, 33, 37 & 41 even though Ohga discloses that the EPG may be transmitted to the subscriber as in-band data, the usage of the in-band data technique is not discussed for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving in-band data. Nevertheless, Banker discuss the well known advantages of technique of in-band data broadcasting for automatic updates of the EPG, (col. 3, lines 44-50). It would have been obvious for one ordinary skill in the art at the time the invention was made, to modify the scheduling algorithm of Ohga, with the technique of periodic updating of in-band data broadcasts, as taught by Banker, at least for the well known advantage of scheduling automatic updates of EPG data which enables a user to receive the instant updates without having to physically tune the channel to the required channel. Thus the

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combination of Ohga & Banker, provides the additional claimed feature of invoking a caching process at the appropriate scheduled time, which automatically tunes the tuner to the proper channel, receives in-band data and stores the instant received data for subsequent processing, see Ohga, (col. 4, lines 11-15) & Banker, (col. 10, lines 25-36)".

Ohga and Banker fail to establish all of the elements of claims 41-42. Ohga is directed to a system for selecting a movie and displaying the movie on a one time basis. The user must be present to receive this data. Storage and subsequent processing is neither taught nor suggested by Ohga, which provides specifically that the data is scrambled to prevent access after the movie is displayed. The Office Action further admits that Ohga does not discuss the usage of the in-band data technique for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving inband data. Ohga therefore provides no motivation to look to Banker. Further, Banker is directed to data transmission for a cable TV system and does not teach or suggest user initiated scheduling as set forth in the claims of the present invention, a tuner which tunes to a scheduled channel at approximately a scheduled time to receive the information associated with the channel regardless of the presence of a user, or storage of information for subsequent processing, present invention as claimed.

Claim 40, from which claims 41-42 depend, is directed to a novel information handling system comprising a tuner having means for tuning to a plurality of channels; and a scheduler having means configurable for determining a scheduled time and scheduled channel to receive and store information associated with the scheduled channel, the operation of said scheduler being initiated by a user, wherein the means for tuning tunes to the scheduled channel at approximately the scheduled time to receive the information associated with the channel, regardless of the presence of the user, and stores the information associated with the channel for subsequent processing. Since Ohga and Banker fail to establish all of these elements, it is respectfully submitted that claims 41-42 are patentably distinguished.

In view of the foregoing amendment to claim 40, any bases for the rejection of claims 41-42 is seen to be removed. Regarding claims 41 and 42, the Office Action admits that usage of the in band data technique is not discussed for the purpose of scheduling automatic updates of the EPG, and that the described scheduling/automatic reception process for receiving in-band data is not discussed by Ohga. Ohga therefore provides no motivation to include such limitations, or to look for such limitations in another reference.

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Applicant submits that the combination of Ohga and Banker does not render obvious claims 1-24, 26-27, 29-31, 33-34, 37-38 and 41-42 of the present invention. Combination of the cited references to support a rejection under section 103 could only be based on improper hindsight in view of Applicant's disclosure. "When prior art references require selective combination ... to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight obtained from the invention itself." *Interconnect Planning Corp. v. Feil,* 774 F.2d 1132, 227 USPQ 543,551 (CAFC 1985). For reference structures to be properly combined, there must be some motivation for the combination. There must be some teaching, suggestion or incentive to make the combination claimed by Applicant. *Northern Telecom, Inc. v. Datapoint Corp.,* 15 USPQ2d 1321, 1323 (CAFC 1990). Such a teaching or suggestion is absent.

In view of the foregoing, the basis for the stated rejection is seen to be removed. Withdrawal of the stated rejection in view of Ohga and Banker and notice of allowance of claims 1-24, 26-27, 29-31, 33-34, 37-38 and 41-42 are respectfully requested.

II.    Rejection of Claims 28, 35, 39 and 43 in View of Ohga, Banker and Hidary

Claims 28, 35, 39 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohga and Banker, in view of Hidary (U.S. 5,774,664). The Office Action asserts:

> "Considering claims 28, 35, 39 & 43 the combination of Ohga & Banker, discuss the transmission & reception of in-band data at least including EPG data, but does not discuss Internet data. However, Hidary discloses the desirable benefits of transmitting Internet related data, i.e URL's within the VBI of a TV signal, (col. 4, lines 40-55). It would have been obvious for one of ordinary skill in the art at the time the invention was made, to modify the combination of Ohga & Banker, to include Internet related data, as well as other EPG data transmitted in the in-band of a TV signal for the well known advantage of more efficiently utilizing the existing communications data streams transmitted to a subscriber, as taught by Hidary, (col. 1, lines 52-62)".

Applicant has clarified the present invention as set forth in the claims by including in all independent claims (claims 1, 9, 15, 16, 21, 25, 32, 36, and 40) the limitation of user initiated scheduling, and receiving data regardless of the presence of a user, and in some claims storage of the data for subsequent processing and retrieval by the user. Applicant respectfully notes that the stated basis for rejection is seen to be removed.

Under 35 U.S.C. Section 103, the U.S. Patent and Trademark Office has the burden of establishing a *prima facie* case of obviousness. The burden can be satisfied "*only* by showing

some *objective* teaching in the prior art or knowledge generally available to one of ordinary skill in the art." (Emphasis Added). *In re Fine,* 837 F.2d 1071 (CAFC 1988). Thus, one must be able to point to something in the prior art that suggests in some way the modification of the particular reference to obtain the claimed invention.

Accordingly, for reasons which follow, neither Ohga, Banker, Hidary, nor any combination thereof teaches or suggests Applicant's novel system as recited by claim 25 and claim 28 depending therefrom, Applicant's novel computer readable medium as recited by claim 32 and claim 35 depending therefrom, Applicant's novel method as recited by claim 36 and claim 39 depending therefrom and Applicant's novel system as recited by claim 40 and claim 43 depending therefrom. Nor is there any objective teaching in Ohga or Banker that would suggest modifying the embodiments disclosed therein to obtain the present invention.

Ohga, as discussed above, is directed to a system for selecting and displaying the movie on a one time basis. The user must be present to receive this data. Storage and subsequent retrieval for viewing or use by a user is not taught or suggested. Ohga provides for scrambling of the data to prevent user access after the one time showing of the movie. The Office Action further admits that Ohga does not discuss the usage of the in-band data technique for the purpose of scheduling automatic updates of the EPG described scheduling/automatic reception process for receiving inband data. Ohga therefore provides no motivation to look to Banker. Further, Banker is directed to data transmission for a cable TV system and does not teach or suggest user initiated scheduling as set forth in the claims of the present invention, transmission of data scheduled by a user regardless of the presence of a user, or storage and retrieval of information for later use by a user as set forth in the claims of the present invention. Hidary is directed to live transmission of URLs determined by a content creator in conjunction with content determined by the content creator, and does not provide for user initiated scheduling, transmission of data scheduled by the user regardless of the presence of the user or storage and retrieval of information for later use by a user as set forth in the present claims.

Ohga, Banker and Hidary fail to establish all of the elements of claim 28. Claim 25, from which claim 28 depends is directed to an information handling system comprising a tuner tunable to a plurality of channels and a scheduler configured to determine a scheduled time and a scheduled channel from the plurality of channels for receiving information associated with the

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scheduled channel, the operation of said scheduler being initiated by a user, wherein the tuner tunes to the scheduled channel at approximately the scheduled time, regardless of the presence of the user, to receive the information associated with the channel. Applicant cannot find in Ohga, Banker or Hidary such a system. These features are present in claim 28, which provides the further feature of the information being Internet related information. Since Ohga, Banker and Hidary fail to establish all of these elements, it is respectfully submitted that claim 28 is patentably distinguished.

Ohga, Banker and Hidary fail to establish all of the elements of claim 35. Claim 32, from which claim 35 depends, is directed to a computer-readable medium having computer-executable instructions stored thereon for performing steps comprising determining a scheduled time and a scheduled channel to receive information associated with the scheduled channel, said determination being initiated by a user; and instructing a tuner to tune to the scheduled channel at approximately the scheduled time to receive the information associated with the scheduled channel, regardless of the presence of the user, and store the information associated with the channel for subsequent processing. Applicant cannot find in Ohga, Banker of Hidary such a computer readable medium. These features are present in claim 35, which provides the further limitation that the information is Internet related. Since Ohga, Banker and Hidary fail to establish all of these elements, it is respectfully submitted that claim 35 is patentably distinguished.

Ohga, Banker and Hidary fail to establish all of the elements of claim 39. Claim 36, from which claim 39 depends, is directed to a method for handling information comprising the steps of determining a scheduled time and a scheduled channel to receive information associated with the scheduled channel, said determination being initiated by a user; and instructing a tuner to tune to the scheduled channel at approximately the scheduled time to receive the information associated with the scheduled channel regardless of the presence of the user, and store the information associated with the channel for subsequent processing, whereby the information may subsequently be retrieved and viewed or used by the user. Applicant cannot find in Ohga, Banker or Hidary such a method. These features are present in claims 39, which provides the further limitation of the information being Internet related. Since Ohga, Banker and Hidary fail to establish all of these elements, it is respectfully submitted that claim 39 is patentably

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distinguished.

Ohga, Banker and Hidary fail to establish all of the elements of claim 43. Claim 40, from which claim 40 depends, is directed to an information handling system comprising a tuner having means for tuning to a plurality of channels; and a scheduler having means configurable for determining a scheduled time and scheduled channel to receive and store information associated with the scheduled channel, the operation of said scheduler being initiated by a user, wherein the means for tuning tunes to the scheduled channel at approximately the scheduled time to receive the information associated with the channel, regardless of the presence of the user, and stores the information associated with the channel for subsequent processing. These elements are present in claim 43, which provides the further limitation that the information is Internet related. Since Ohga, Banker and Hidary fail to establish all of these elements, it is respectfully submitted that claim 43 is patentably distinguished.

Applicant submits that the combination of Ohga, Banker and Hidary does not render obvious the claims of the present invention. Combination of the cited references to support a rejection under section 103 could only be based on improper hindsight in view of Applicant's disclosure. "When prior art references require selective combination ... to render obvious a subsequent invention, there must be some reason for the combination other than the hindsight obtained from the invention itself." *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 227 USPQ 543,551 (CAFC 1985). For reference structures to be properly combined, there must be some motivation for the combination. There must be some teaching, suggestion or incentive to make the combination claimed by Applicant. *Northern Telecom, Inc. v. Datapoint Corp.*, 15 USPQ2d 1321, 1323 (CAFC 1990). Such a teaching or suggestion is absent.

In view of the foregoing, withdrawal of the stated rejection of claims 28, 35, 39 and 43 in addition to allowance of these claims is respectfully requested.

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## CONCLUSION

Applicant believes the claims are in condition for allowance and requests reconsideration of the application and allowance of the claims, i.e. claims 1-43. The Examiner is invited to telephone the below-signed attorney at 612-371-2148 to discuss any questions which may remain with respect to the present application. If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-0439.

Respectfully submitted,

THEODORE D. WUGOFSKI

By their Representatives,

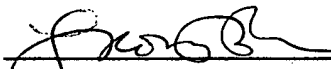SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
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I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Assistant Commissioner of Patents, Washington, D.C. 20231 on **January 26, 2000.**

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Name                               Signature